

EXHIBIT F

EXHIBIT 65
UNREDACTED VERSION
OF DOCUMENT SOUGHT
TO BE SEALED

1 UNITED STATES DISTRICT COURT
2 NORTHERN DISTRICT OF CALIFORNIA
3

4 CISCO SYSTEMS, INC.,)
5 Plaintiff,) Civil Action No.
6 vs.) 5:14-cv-5344-BLF
7 ARISTA NETWORKS, INC.,)
8 Defendant.)
9 _____/

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11
12 HIGHLY CONFIDENTIAL - ATTORNEYS' EYES ONLY

13 PURSUANT TO PROTECTIVE ORDER
14

15 VIDEOTAPE DEPOSITION OF MARK EDWARD BERLY

16 (Taken by Plaintiff)

17 Chapel Hill, North Carolina

18 Tuesday, April 5th, 2016
19
20
21
22

23 Reported in Stenotype by:

24 Judy F. Reins, RMR, CRR

25 Transcript produced by computer-aided transcription

1 | refer to it at a couple of points today.

2	A. Sure.
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[illegible]

1 Q. When you say the vendors have to use open
2 standards, what do you mean by that?

3 A. I'll go back to my BGP protocol, just to
4 kind of keep it consistent. You know, for my device
5 to talk to another device, either whether it's one
6 of -- an Arista device talking to an Arista device or
7 an Arista device talking to Cisco or Juniper or
8 whoever, you have to have a standardized way of doing
9 stuff.

10 So in the routing space with -- say with BGP
11 as an example, you would have a standardized protocol
12 that everybody implements. The protocol in the same
13 way obviously the source code and everything is
14 proprietary. It's something that each company writes,
15 but the way that they talk, the messages that they
16 send are -- should all be the same. Otherwise they
17 couldn't interoperate.

18 Q. Are there any standardized protocols for
19 human machine interaction for network devices?

20 A. Are there any standardized protocols for
21 human -- I don't know of any.

■ ■ [REDACTED]
■ [REDACTED]
■ [REDACTED] [REDACTED]
■ [REDACTED]

[illegible]

1 Q. Do you think it's accurate to use IOS like
2 and industry standard like as synonyms?

3 A. I never really thought about it.

4 Q. But you don't think there's anything
5 inaccurate in what you just testified about?

6 A. It's a great question.

7 MR. FERRALL: Objection, vague and
8 ambiguous.

9 THE WITNESS: I think it's a great question.
10 I haven't thought about it, so I don't -- you
11 know, I don't really have a good answer for you.
12 I apologize.

13 BY MR. CANNON:

14 Q. Is it possible to deviate from the industry
15 standard in the CLI at all?

16 A. I think what you'll find if you look at the
17 deviations, they're so minor or inconsequential or
18 rely on, you know, command completion that they're
19 really inconsequential. Would you like me to give you
20 an example?

21 Q. Yeah, please.

22 A. Sure. So we were talking about show, so
23 we'll use your example of show. What if I change --
24 what if I use the word "showing," so I decide I want
25 to use showing. The way all the parsers work, they'll

1 do command completion. So S-H-O, S-H-O-W, or
2 S-H-O-W-I-N-G on the system was showing, all would
3 work, just like S-H-O or S-H-O-W would work, or S-H
4 even, on a box that uses show.

5 Q. A minute ago when you were talking about the
6 Junos as it runs on the MX series, you were talking
7 about the commands aren't, I think it was arranged the
8 same way, is the way you described it. Do you
9 remember that?

10 A. Yes.

11 Q. What did you mean by that?

12 A. Industry standard looks -- you typically
13 have a lot more, say, on a single line. It's a little
14 harder to describe when you -- unless you're looking
15 at it, but, where Junos tends to break things up more
16 hierarchically, so they use -- it's just a
17 fundamentally different structure. If -- if you know
18 the standard words, you can decipher what they're
19 doing, but the way they lay it out is -- is different.

20 Q. Can you explain more? Would it be helpful
21 if you had a sheet of paper to illustrate it?

22 A. Sure. I mean, I can -- sure, I could -- I
23 could try.

24 Q. Well, here. I'll give you a sheet of paper
25 and we can mark this as Exhibit 479.

1 A. All right.

2 (EXHIBIT 479 WAS MARKED FOR IDENTIFICATION)

3 MR. FERRALL: Just wait until he asks
4 questions. He's asking you to make an exhibit,
5 which is rather novel for a fact witness, but
6 I'll -- I'll wait until I hear the questions, but
7 he's not asked you to do anything with it right
8 now.

9 BY MR. CANNON:

10 Q. You said that industry standard, you usually
11 have a lot on a single line, but Junos tends to break
12 things up more. I was wondering if you could
13 illustrate what you meant by that on Exhibit 479.

14 MR. FERRALL: The question is vague and
15 ambiguous, but if you understand it, you can go
16 ahead.

17 THE WITNESS: Without using words, just
18 because I don't really know what words he used, I
19 would say this is the way you might see something
20 represented in IOS, each one of those lines being
21 some bit of information. Junos you might see it
22 represented like this. But these bits of
23 information, these key words here, typically are
24 the same. They're just laid out instead of on
25 the single line, more like this, in between these

1 they were using -- you know, they would have to be
2 configured in the proper way so that they could
3 communicate.

4 Q. So if the protocol, for example, specifies
5 what information needs to be in the header of a packet
6 for addressing functionality, let's say, the direct
7 type of interoperability would be whether, you know,
8 one machine can read that addressing information in
9 the header from the packet when it's sent by another,
10 and the indirect would be whether or not the users
11 configure the devices to send and receive packets
12 using the same commands.

13 Is that -- am I understanding the
14 distinction correctly?

15 MR. FERRALL: Objection. The question is
16 vague and ambiguous, compound. You can answer.

17 THE WITNESS: I -- based on my understanding
18 of what you're saying, I believe that we're
19 saying very similar things in that -- maybe if I
20 gave just a very short example, that might help.

21 Let's take a very basic command that, as far
22 as I know, is ubiquities really across every
23 networking operating system out there, and that's
24 IP routing, say. When you enable IP routing
25 without getting too technical for the box to

1 really switch packets from one location to
2 another location, when it's routing, you have to
3 have IP space routing on.

4 If a box as its default, let's just say they
5 had the exact same commands but the default
6 settings were different, so on one box, IP
7 routing is enabled by default. Then on the other
8 box, IP routing is disabled by default. If your
9 understanding was that IP routing is enabled by
10 default, when you get to the other box, you'll
11 never think to look to see if it's enabled
12 because you just assume it is enabled, and that's
13 a very basic functionality that would basically
14 keep the box from working.

15 BY MR. CANNON:

16 Q. And it would keep the box -- to follow up on
17 your example -- well, that wouldn't make sense.

18 So to press on that example a little bit, as
19 long as two different devices sent properly formatted
20 IP packets to one another, would it matter if you
21 turned on IP routing with enable IP routing on one
22 device and set IP routing on the other?

23 MR. FERRALL: Objection, vague and
24 ambiguous, calls for opinion testimony, and
25 incomplete hypothetical. You can answer the

1 question.

2 THE WITNESS: If you knew that those were
3 the commands that were what you were supposed to
4 type, then theoretically, speculatively, if
5 everything worked fine, I would say that they
6 could.

7 BY MR. CANNON:

8 Q. And are you aware of a protocol for
9 machine-to-machine communication that lays out the
10 full set of configuration commands that need to be
11 used to configure that protocol on a given device?

12 MR. FERRALL: Objection, vague and
13 ambiguous.

14 THE WITNESS: Yeah, if you could maybe be
15 more specific in what you're talking about. I
16 mean, there's hundreds or thousands or tens of
17 thousands of commands.

18 BY MR. CANNON:

19 Q. I guess that's kind of what I'm getting at
20 is: Are you aware of a protocol that says, you know,
21 you need to type commands A, B, and C in order to
22 implement this protocol?

23 A. Well, I think that's where you're getting
24 into the indirect interface or the human-to-machine
25 interface. And going back to my earlier point that

1 the amount of time people have invested and the
2 expectation for a fairly standard CLI or standard
3 interface to the box is really an important --
4 important for them.

5 Q. It's important because they expect it, not
6 because it's defined in a protocol, though. Right?

7 A. It's important because they -- umm. It's
8 important because it's how they would operate the box.
9 You know, it's -- I'll go back to my, if I don't know
10 where the light switches are at, I'm not going to
11 drive my car at night.

12 Q. Let's look at -- well, let me -- before you
13 do that, let me ask another question. In what
14 circumstances is it permissible from a customer
15 perspective in your experience to deviate from the
16 industry standard CLI?

17 A. Can you -- I don't know that I could answer
18 that. I really don't have an answer for that, umm.

19 Q. Is that because my question didn't make
20 sense or because you can't think of a scenario in
21 which that -- doing that would make sense, deviating
22 from that industry standard?

23 A. Maybe a combination of both. Yeah, I really
24 don't have an answer for that. I apologize. Maybe
25 I'm not sure what you're asking or I don't quite

1 probably cost customers or cost customers, you know, a
2 lot of time and money getting things deployed.

3 Q. Setting aside the specific context of
4 Exhibit 485, when you were at Cisco, were you aware of
5 a central authority for getting new CLI commands
6 approved?

7 A. There was an alias called "parser police,"
8 and my understanding is it was more of an informal
9 alias. It's not like you got elected to be on parser
10 police. And if somebody wanted to implement a
11 command, they would send it to parser police. That
12 didn't happen many times. I mean, some got sent; many
13 didn't.

14 Q. Did you participate in the parser police?

15 A. I know I subscribed to it. I may have sent
16 a few emails to it. Again, the older I get, the
17 shorter the memory becomes. I apologize.

18 Q. Not something that sticks in your mind these
19 days?

20 A. Yeah, no, it wasn't something I actively
21 pursued. Most of the debates were very trivial in
22 nature and there's a lot of smart people on the alias,
23 and I think many of the debates were really about
24 showing that they were smarter than the other guy and
25 not find any real substance.

1 Q. Like your previous comment about the coders
2 wanting to redo code every time?

3 A. Correct. You know, should we put a space;
4 should we put a dash; should we do this; should we do
5 that. It was very, you know, inconsequential things.

6 Q. Do those kinds of differences, whether you
7 use a space or dash, matter to how commands are
8 interpreted by a network operating system or network
9 device operating system?

10 A. Not to the network device itself. Keep in
11 mind that the commands kind of sit here at the human
12 level, and that's something that the human interprets.
13 On the back side of it, it's going to kick off some
14 process. That process really doesn't care what the
15 command is. The command is for a person.

16 Q. Does the parsing engine that interprets the
17 commands within the operating system care whether or
18 not words are separated by a space or a dash, to use
19 your examples?

20 A. So I'm not an expert on the parser, so, but
21 as an example, here's something that could be highly
22 annoying and it switched -- I've seen this switched
23 before. Show mac, space, address-table; or show
24 mac-address table. So it's the same words, but the
25 hyphen got moved.

1 So if I'm autocompleting, which every
2 network operator does, I mean, like, nobody types the
3 whole command, and -- and so you're typing in "show,"
4 so S-H, mac, or M-A, you know, however short you can
5 get the abbreviation because that's part of being cool
6 as a network operator, getting the shortest, most
7 arcane words you can because that makes -- shows that
8 you're smarter than the next guy. Right?

9 So S-H M-A-C space T-A-B. So show mac tab,
10 so show, but if the space was between mac and address,
11 that would come back as an invalid command because
12 then it would be S-H M-A-C A-D-D dot T-A-B. Does that
13 make sense? So the parser, where a space or hyphen
14 would appear would cause a network operator some
15 consternation, yes.

16 Q. So fair to say that those are trivial
17 differences that were debated on the parser police,
18 but that they impacted the way the parser would
19 actually operate?

20 A. I don't think it impacts the way the parser
21 operates. The parser operates the same no matter
22 what.

23 Q. Fair enough. Let me rephrase. Is it fair
24 to say those are trivial differences that were debated
25 on the parser police but they impacted the way a given

1 command would be interpreted by the parser?

2 A. I believe you could say that. I'm pretty
3 sure I follow the question, yes, but, I mean, think
4 about the headache that causes as an operator. I know
5 that one personally 'cause it made me insane. Based
6 on which version you're running, I can't abbreviate.

7 Q. Do you remember which version it was that
8 caused you the headache?

9 A. I don't remember. I just remember, I wanted
10 to cry several times.

11 Q. Just curious. Let's take a look at another
12 document. Okay. I have to apologize for this one.
13 For some reason, stuff didn't get stapled, so there's
14 an email and the attachments. The email is on top.
15 The attachment is stapled underneath it. I only have
16 one copy. Sorry.

17 A. I see what you're saying.

18 MR. FERRALL: Are you going to mark this as
19 a single exhibit?

20 MR. CANNON: Yes, it's Exhibit 486 --
21 actually, can we go off record for just a second.

22 THE VIDEOGRAPHER: Going off the record.

23 The time is 5:08 p.m.

24 (RECESS TAKEN)

25 (EXHIBIT 486 WAS MARKED FOR IDENTIFICATION)

1 THE VIDEOGRAPHER: Going back on the record.

3 BY MR. CANNON:

8 (WITNESS REVIEWS DOCUMENT)

10	Q. What is Exhibit 486?
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forth with counsel about custodial production and whether or not it should have occurred.

In the event that it does happen, we would certainly reserve the right to reopen the deposition, but I don't have any further questions at this point.

EXAMINATION

BY MR. FERRALL:

Q. Mr. Berly, I've got one area of questioning
I just want to clarify. Just a second.

Do you remember this morning Mr. Cannon asked you some questions about whether at your time at Cisco, Cisco or anyone there had ever told you that its CLI was an industry standard. You remember that general line of questioning?

A. I do.

Q. Have you ever seen anything in writing from Cisco that indicates that the CLI could be characterized as an industry standard?

A. I have.

Q. What have you seen in writing?

A. So it's appeared on multiple data sheets at presentations.

Q. Presentations for what purpose, to your recollection?

1 A. Customer education, sales education, you
2 know, external facing; some internal, but external
3 facing as well.

4 Q. What's a data sheet?

5 A. A data sheet is something that a person
6 would look at to find out what a particular device
7 does, so it lists the characteristics and attributes
8 of that device at -- at a high level.

9 Q. And who's the intended audience for a data
10 sheet?

11 A. The customer.

12 MR. FERRALL: I have no further questions.

13 FURTHER EXAMINATION

14 BY MR. CANNON:

15 Q. The documents that you just described are
16 customer-facing documents. Right?

17 A. Correct.

18 Q. Are you aware of any document sent from
19 Cisco to any industry standard setting body describing
20 Cisco to CHI as the standard?

21 A. No.

22 Q. And are you aware of any of the data sheets
23 or presentations that you just described as saying
24 that Cisco's CLI is free for the taking?

25 A. I would describe it as an industry standard.

1 MR. CANNON: Nothing further for me. I
2 think we were going to note, though, for the
3 record that I think both parties wanted a rough
4 draft of the transcript tonight with a final
5 coming on Friday.

6 MR. FERRALL: Correct. Thank you.

7 THE VIDEOGRAPHER: This concludes the video
8 deposition of Mark Berly. Time going off the
9 record is 6:29 p.m.

10 (SIGNATURE RESERVED)

11 (DEPOSITION CONCLUDED AT 6:29 p.m.)
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